CENTRAL DELTA WATER AGENCY
235 East Weber Avenue • P. O. Box 1461 • Stockton, CA 95201
Phone 209/465-5883

September 25, 1997

COPY

Rick Woodard
CAL FED Bay-Delta Program
1416 - 9th Street, Suite 1155
Sacramento, CA 95814

RE: Comments on Component Report
Draft August 1997, CAL FED Water Quality Program

Dear Rick:

Thank you for your September 8 response to my August 13 letter. I appreciate your willingness to incorporate my suggested changes into the next draft of the Component Report.

Please find enclosed a copy of Table III-7 which appeared at page 22 of the M. Kavanaugh Testimony submitted as Exhibit DW-13 in the recently concluded evidentiary hearings on the Delta Wetlands Project before the State Water Resources Control Board. The data sources are identified in the footnotes.

With regard to your comments about organic carbon as a "pollutant," I continue to believe the terminology is inappropriate. Whereas organic carbon can become a constraint upon disinfection techniques (depending upon the process chosen), organic carbon is clearly a natural component in surface waters which have organic material in their watersheds. In the broad picture, organic carbon is a beneficial component of surface water supplies, serving as a basic component of primary productivity. I believe it would be much more instructive and accurate to describe organic carbon as a "drinking water disinfectant constraint" rather than as a "pollutant." The term "pollutant" has technical meaning in the clean water statutes which might dictate removal, which, in the case of organic carbon, would engender more harm than good, especially given the opportunities for specific removal at reasonable cost by enhanced coagulation in the drinking water treatment process and/or by alternative disinfection techniques.

D-042994

I also have some comments on bromides in the Delta water supply. I assume by now you have seen the analysis on San Joaquin River bromides prepared by Dr. Orlob for the South Delta Water Agency. If not, I would be happy to send you a copy.

Dr. Orlob concludes that bromides in the San Joaquin River drainage are predominantly (if not entirely) the result of the export of Delta water affected by sea water intrusion by the export pumps to San Joaquin Valley users.

By implication, maintaining sufficient Delta outflow to limit sea water intrusion into the South Delta will, over time, solve the bromide problems for the export projects. I believe the level of Delta outflow required to meet the western Delta water quality standards set forth in the current Bay Delta Plan is sufficient in most instances to limit bromide concentrations at the export pumps to acceptable levels.

I note from the information you provided me from the Progress Report on Delta Simulation Model Studies of CAL FED Alternative 1A, 1C, 2B, 2D, 2E and 3E that there are opportunities to control bromide concentrations at Clifton Court and Tracy PP without redirecting the impacts of bromide and TDS increases to Delta diverters and without the use of isolated transfer facilities (Alternative 3E). Avoiding redirected impacts is, of course, a major solution principle of CAL FED.

Again, thank you for giving me the opportunity to comment on these subjects.

Yours very truly,

Thomas M. Zuckerman

THOMAS M. ZUCKERMAN

TMZ:csf
Enclosure
cc: Dante J. Nomellini

DICTATED BY THE WRITER:
SIGNED AND MAILED IN WRITER'S
ABSENCE TO AVOID DELAY

Table III-7

Comparison of TOC Values: Delta Export Water at H.O. Banks (Station No. 12) Versus Other U.S. Surface Waters

TOC (mg/L)	H.O. Banks[1]	U.S. Surface Waters[2]	U.S. EPA Region IX[2]
No. Data Points	60	77	8
Minimum	2.4	1.2	1.5
Maximum	8.9	16.6	6.0
Mean	3.6	4.5	3.4
Median	3.3	3.7	3.4
Geometric Mean	3.4	3.8	3.1
75 Percentile	4.1	5.8	4.1
90 Percentile	4.6	8.2	5.0

1 - DWR MWQI Database (1983 to 1996). Sample dates from 10/22/87 through 6/22/94.

2 - Krasner, S.W., J. Westrick, S. Regli. "Bench and Pilot Testing Under the ICR." *JAWWA*, August 1995.
TOC survey conducted 8/1993. Sampling times ranged from mid-1970's to early 1990's.